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THE

MANAGEMENT OF CHILDREN

IN SICKNESS AND IN HEALTH.

A

BOOK FOR MOTHERS.

BY

AMIE M. HALE, M.D.

PHILADELPHIA:
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1880.

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1880.

TO

CHARLES WARRINGTON EARLE, M. D.,

PROFESSOR OF DISEASES OF CHILDREN IN THE WOMAN'S MEDICAL COLLEGE,

I Dedicate this Little Book,

NOT LESS IN GRATEFUL RECOGNITION OF HIS LABORS FOR THE MEDICAL EDUCATION OF WOMEN, THAN OF MY OWN PERSONAL OBLIGATION TO HIS KINDNESS.

CHICAGO, Feb. 24th, 1880.

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THE

MANAGEMENT OF CHILDREN.

CHAPTER I.

INTRODUCTORY.

ACCORDING to the Report of the Board of Health of the City of New York, for the year 1876, 14,208 children under five years of age died during the year. The whole number of children under five years of age in New York is computed to be 130,000. Of these, 110 in every 1000 die. The deaths among infants under one year show a much larger proportion.

The year 1876 was not exceptionally disastrous to human life, and these figures, taking one decade with another, are probably not above the average.

This appalling mortality among children, which is at once the despair of medical science and the shame of our sanitary system, must very largely, no doubt, be set down to ignorance on the part of the mother, not only of proper nursing in illness, but of the methods by which sound health may be maintained.

Besides the actual loss of life, the amount of suffering endured by young children directly traceable, in a vast number of cases, to mismanagement on the part of the mother, is one of the most painful things an educated observer has to contemplate. Ignorance of the requirements of an infant; ignorance of the indications of grave disease, and inability to distinguish between these and those slight ailments which need no treatment; readiness to accept foolish counsel without reflection; an easy adoption of fallacious theories and notions not founded in reason—all these things tell fearfully against the chances of the little one for health and continued existence.

What wonder is it that the baby dies or lives to suffer perpetual torment, when we consider how innocent most young mothers are of any knowledge whatever of their important and novel duties? During her illness she gathers a few items of information from the nurse, her mother, or mother-in-law, or the maiden aunt may be at hand with advice. This advice may be wholly judicious; some of it will doubtless be excellent, but it will be strange if it is not adulterated with foolish whims and crude absurdities. Such as it is, however, this is the young mother's whole outfit, save in exceptional cases. I do not forget that a quick intelligence can atone for a multitude of deficiencies, and that a little good sense will go far to make amends for want of experience, but this will fall short of the need. For the good of her child, the mother needs all the positive knowledge she can

acquire, superadded to her own judgment of what is proper and desirable.

It is a dreary thing for the mother to reflect, years after the grave has closed over her child, that if she had known earlier what she knows now, what seems so simple and easy to learn, she might have saved the precious life that went out so soon.

For me, I confess I cannot be comforted for this loss of life by the trite consolation that the little one is "better off, and perhaps taken away from the evil to come." I think that this life is a good thing, that its experience is needful for the symmetrical rounding out of human character, and that it is a great misfortune to lose what this life has to give, no matter how far transcending its enjoyments are those of that other life of which we know so little. The right, the fit and the natural way is the living out of this life until the ripeness of old age loosens our hold upon it. These consolations, which really console nobody, are only our vain strivings to lighten the burden of that insupportable and immitigable sorrow, Death.

And so, because there are so many mothers sitting under the shadow of a great woe that need not have been, and because I pity the poor babies, who, besides being exposed to the natural perils of infancy, are subject to those of officiousness and ignorance, I propose to tell in a few chapters what I know about taking care of children in sickness and in health, hoping thus to be of some service to those who are willing to learn. I shall assert nothing which has

not the sanction of the best authority, and if at any time I venture an opinion or suggestion opposed to the general view, I shall take care to indicate that it is my opinion and give my reasons for it.

At the outset I wish to urge upon mothers a few considerations whose reasonableness will, I think, be easily apparent.

Do not be too ready to adopt general maxims or inflexible rules for the treatment of your children, such as that "an infant should have a cold bath every day," or that "food should never be given between meals." Be satisfied with principles, and in details be governed by circumstances. Remember that conditions vary constantly. In case of illness, serious or otherwise, when you have chosen a physician, do not hastily discard his advice for that of the well-meaning but mistaken mother, or aunt, or neighbor. It is true that the doctor may be wrong, but the chances are a thousand to one that it is the friend who is so. Consider that, though she may have raised half a score of children, his experience is wider than hers. A physician in good practice sees more disease in one epidemic than the most peripatetic neighbor, who is "so good in sickness," sees in a lifetime. The doctor, too, trained as he is to observe details, sees things which escape the unprofessional eye, and he knows, also, their relative importance. I speak of the well-educated physician, and have no wish to undervalue those sensible, good women, whose practical experience is worth more than the superficial

knowledge of the ignorant graduate, whose study is a sham and whose diploma is a fraud. I wish chiefly to indicate the fact that amateur doctoring, though it may chance to do well, is an unsafe dependence, since it has few principles to guide it, and its practice is founded upon a limited number of facts, and those but imperfectly understood. Like everything else amateur, it is wholly unsatisfactory when tried by any high standard of professional art.

Obey the doctor's directions implicitly. The exigency seldom arises when it is safe to put aside his instructions. If it seems to arise, it is better to consult him, even at the cost of some trouble, than to run any risk.

Do not always be dosing children. The slight *malaise* will often disappear under the combined influences of rest, light diet, and sleep. Do not, on the other hand, let the child suffer day after day when you don't know what is the matter, because you "don't believe in medicines." It is one thing to give medicine when it is not required, and another to use it judiciously to ward off or control serious disease.

Discourage the growth of crotchets in your brain, and keep a teachable spirit. In any sudden illness, be watchful and careful, but be cool. Do not give way to unreasoning fright, and do not foolishly, I had almost said wantonly, sacrifice your own health in a frenzied solicitude to do everything yourself. If the disease is one that runs a swift course and the baby's life is told off by heart-beats, the mother may

then well forget herself and refuse to leave the bedside of her darling; but if many days or weeks are to pass, it is requisite that you obtain sleep, eat nutritious food, get frequent baths and fresh air. A little careful husbanding of resources at the beginning, when the symptoms are mild and the danger not urgent, will sometimes enable one to be of inestimable service at a crisis when everything tells on the result.

In contagious diseases, religiously observe the precautions designed to secure your own safety and that of others.

CHAPTER II.

THE BABY.

LET us consider, now, the new-born babe. He is as ugly as a frog, and not unlike one, with his disproportionately large trunk and limbs sprawling wildly about. Scarcely in the world, his troubles have already begun. The nurse washes the soap into his eyes, and then pins him up tightly in a bandage. Is this for warmth? A flannel band loosely applied is a wise arrangement. No; not for warmth, but to keep him in shape. There is danger, then, of his falling apart. Nature, it seems, did not know what she was about when she fashioned those flexible ribs and those elastic but strong abdominal walls. One would think they were designed on purpose to maintain the cohesion. I believe that they were, and that they are fully adequate to that end. I advise the mother, when she is able, to look to that bandage. Very injurious pressure may be made with it quite unawares to the nurse.

Do not burden the baby nor tax yourself with the removal and replacement of numerous strata of fantastically made garments. The more simple the clothes and the fewer, so that warmth be secured,

the better. Let there be absolutely no pressure on the chest, no cutting in of straps and seams about the shoulders and armpits, no avoidable wrinkles anywhere. The red creases seen in the tender flesh when the child is undressed often bear witness to the cruel fashion of the attire. The under-garments should be made of soft flannel. In summer this may be light, and, if the skin is sensitive, a very thin muslin may be interposed between it and the surface of the body. It must be remembered that infants have but a feeble power of generating heat, and are absolutely dependent upon communicated warmth. And here I must enter my earnest protest against the custom of carrying new-born children from room to room, and even from house to house, for exhibition. I have no doubt that many of the obscure as well as familiar diseases of infants have their origin in this reprehensible practice. Nothing is more easy than for the sensitive surface to become chilled, and various congestive disorders may be thus induced. Let the baby remain for the first few weeks in the room with the mother, the air there being kept pure and sweet, and only very gradually inured to change of temperature. It should be kept quiet; not unnecessarily tossed about or rudely handled. In the case of the prematurely born child, these suggestions of equable warmth and perfect repose become infinitely more important. The endeavor should be to maintain a condition as nearly as possible resembling the ante-natal one. These children I would have

kept especially warm and still, gently bathed in warm water not more than twice a week, the daily bath being replaced by inunctions of cod-liver or olive oil applied to the whole surface of the body, the nurse sitting by the fire meanwhile and carefully protecting the child from draughts. Many of these children die from an imperfect development of the vital organs, which are therefore incapable of a proper performance of their functions; but I believe a much larger proportion of them might be saved with more judicious and careful treatment.

In the accidental absence of the trained nurse, it may become necessary for inexperienced hands to perform that somewhat formidable operation to the amateur — the first washing of the baby.

A large basin of warm water, fine soap, soft towels and sponges, and a small jar of olive oil are the needful equipments. A seat sheltered from draughts, and near the fire in cold weather, is also essential.

The surface of the child's body will usually be more or less covered with a white, curdy substance, technically called the *vernix caseosa*.

To facilitate the removal of this, first rub the body all over with the olive oil, which should have been previously warmed. After this inunction, apply the warm water with a soft sponge or bit of linen and wash the skin perfectly clean, giving special attention to the armpits, the creases under the chin and elsewhere, the spaces between the fingers and toes. With a fresh basin of water and a clean sponge wash

the eyes, the mouth, and the nostrils, without the use of soap. Wash the ears, also, but do not allow water to run into them. Afterwards dry the surface quickly and thoroughly.

This care of the skin, thus early begun, must be continued, in order to secure the comfort of the little one. I have seen a degree of neglect in this particular, even among tolerably careful mothers, which seemed to me almost unpardonable; and I think much of the fretfulness of infants, as well as the spells of crying which so afflict and dismay the mother and everybody within hearing, may be traced to some personal discomfort, like this of an irritated, smarting skin. Not only the excretions, but the exhalations from the skin, are often acrid enough to produce an amount of irritation which an adult would hardly bear with composure. The preventive and remedy is, first of all, cleanliness. The child should be washed, not in a slipshod, careless fashion, but with a sufficiently careful hand and a liberal use of water to absolutely insure the removal of all sources of irritation; and the bath should be repeated often enough to keep the surface clean. In drying the skin, especial care should be taken to remove every particle of moisture from all the flexures of the body, and this should be done, not roughly, but with a gentle hand. Use as little soap as possible, and that of the finest kind, and have it well washed off with pure water. If rain-water can be had for the bath, so much the better. After the sur-

face is well dried, any of the harmless powders in general use may be employed with a view of preventing chafings or excoriations, which, however, will rarely occur if perfect cleanliness, by the proper methods, be secured.

In the case of a sick child, when the skin inclines to be tender at those points where pressure is made, washing with diluted camphor-water is of great service. But sick children should not be allowed to lie long in one position, and the bed should be made as smooth and as free from inequalities as possible. When there is any cerebral disorder or any disease accompanied by much heat in the head, something else than a feather pillow should be used. I know of nothing so good as a pillow made of finely-shredded corn-husks. Young infants in sickness may lie on this pillow, covered in winter with a blanket and in summer with a folded sheet, to their own great advantage and the ease of the nurse. If, in spite of care, chafing and excoriations occur, use a powder composed of one drachm of sub-nitrate of bismuth to one ounce of lycopodium or rice-powder. Cool salt-water baths relieve the prickly-heat, which is so annoying in summer. Rose-water is also pleasantly cooling; so is bay-rum, largely diluted.

I decidedly prefer the warm bath for young infants, the temperature not being below that of the surface. As the child grows older and stronger, the bath may be made cooler. The cold bath is invigorating when a perfect reaction can be obtained; and

delicate children, after the first year, may be greatly benefited by it, if it is carefully given. The room should be warm, the skin rubbed dry and made to glow like a rose. Salt added to the water is useful, and a little aqua-ammonia makes a stimulating bath. When the reaction is deficient, one or the other of these should be used, if the cold bath is attempted.

Always be able to command a fire in at least one sleeping-room in the house. The practice of banishing all the stoves to the garret in the spring has probably been the occasion of more illness than any other family custom. In our climate there is not a month in the year when damp, chilly weather is not liable to occur, and in such weather a fire is essential to the comfort and health of children and of feeble adults.

CHAPTER III.

FOOD AND SLEEP.

WHAT shall the baby eat? Here Nature's provision is eminently wise. Nothing is so good as the mother's milk, if it be healthy milk. If not, a good wet-nurse offers the best chance of saving the child. It is true, that many children thrive "brought up by hand," but the odds are fearfully against it, especially if one is dependent upon servants. If this is attempted, the mother ought, if possible, to attend to the preparation of the food herself, and to see that the bottle and tip are kept quite clean and sweet. When these are not in use, they should be laid in a bowl of cold water which has been made alkaline by a pinch of soda. This is an important point. I was told by an inmate of a great charitable institution for children in this city, that they had given up the use of the bottle and fed the infants from a teaspoon "because the girls" — mothers and nurses expecting to be mothers — "would not keep the bottles clean." It is from this class that the nurses in our homes are drawn. If they will not properly look after the well-being of their own children, how may they be expected to treat the infants whom they are hired to

attend? Vigilant supervision by the mother is indispensable.

It is always desirable to have professional advice in the selection of a wet-nurse, in order to be assured that she is in sound health, and therefore not liable to communicate disease to her foster child. It is best that she should be of a placid temperament, and not prone to fits of anger, since it is well known that indulgence in great emotion of any kind, affects the quality of the milk. Fatal convulsions in the infant, which could not be traced to any other cause, have been known to follow a period of intense excitement in the nurse.

The nurse should have plenty of fresh air, exercise in moderation and sufficient sleep. If her hours of sleep are too much disturbed by the child, the nervous fatigue thus induced will react on the infant and perpetuate his restlessness. Her food should be abundant and nutritious, and in the main such as she has been accustomed to and prefers.

The babe should be put to nurse, unless there are reasons against it, within a few hours after its birth. It is born with the instinct to nurse, and if any long delay occurs, this instinct is lost. It literally forgets how. In the case of prematurely born children, if the natural nourishment is not to be had, a wet-nurse should be procured whose milk is still fresh. Failing in this, great care should be taken not to over-feed the child. It may be perfectly formed to all external appearance, but the digestive organs may still be too

imperfectly developed to dispose of anything but the very lightest nourishment. Often a little sugared water is all they require for the first few days. One of the tiniest mites that ever survived was fed for six weeks on orange juice and sugar. I have forgotten how much, or rather how little, she weighed, but she was clothed about by cotton-wool only for three months, and kept on a pillow. In spite of the discouraging prospect, she made one of the brightest and healthiest little girls I ever knew.

If anything other than sweetened water is given, it may be a very weak oatmeal or barley-water, with a pinch of sugar and a teaspoonful of cream to the ounce. Cow's milk, however diluted, is wholly unsuitable.

Next to its food, perhaps equal to it in importance to the young child, is sleep. Nothing is a more certain symptom of illness than loss of sleep; nothing more surely points to increasing physical disturbance than a growing restlessness and sleep which becomes more and more broken. An infant in perfect health, nourished properly and abundantly, will sleep twenty hours out of the twenty-four until it is a month or two old. After two or three months the baby will be more wakeful during the day; but still, if well, it should sleep soundly all night, from early evening until morning, waking but once or twice to nurse; and it should also have a nap of two or three hours in the forenoon, and one not quite so long in the afternoon. Some would sleep all night without wak-

ing at all. At the age of six or eight months, sometimes earlier, dentition commences, the health is impaired, and the sleep begins to be disturbed.

It is true that a great many infants do not sleep in the natural and wholesome fashion above described. Sometimes the baby is restless and troublesome from the first. Some mothers do not know what it is to have a good night's rest from the birth of their child until it is two years old or more. Certain children are born with a nervous system extraordinarily susceptible to slight impressions. This inherited diathesis is a grave misfortune, not to be wholly overcome by any means, but I believe it can be materially modified by a judicious regimen. It can certainly be immensely aggravated and developed by a careless disregard of hygiene. After dentition begins, a certain degree of nervous disturbance often necessarily exists. But, aside from this, if the baby is habitually troublesome at night, there is something amiss, and in nine cases out of ten that something amiss is in the digestion. Look for one moment at the way a majority of American infants are reared. By the time the baby is five or six months old, sometimes earlier, it not only is given all the milk it will drink in addition to its natural food, but it is fed at table, —bread, meat, potatoes, cabbage, pies, cake, pudding,— anything which the adults of the family eat. Instead of knowing it to be the most natural thing in the world for all young animals, the human included, to devour whatever food comes within its

reach, many mothers seem to think it a proof of surprising cleverness in the baby to swallow the food which they masticate and put into its mouth. As it grows older, its appetite also grows; and, spoiled by custom, the baby screams for whatever dish may catch its fancy. At a year old it munches cake at tea and lunch, often just before bedtime; gnaws apples, swallowing, of course, hard bits that tax its powers of digestion beyond their capacity, and sucks candy freely, between meals. What wonder that it shrieks out with nightmare in its first sleep? What is the remedy? The child is put to the breast! This soothes for the time, and he falls asleep. But nature will not be outraged. Presently another series of frantic shrieks are heard, and the same remedy is applied. Each successive waking becomes more frightful, and at last there is a long, dreadful crying-spell, which forces the mother to rise, and perhaps walk the floor for hours. Fortunate is she if she has the skill to give a simple medicine which would help digestion and relieve the overtasked stomach. She is more likely to walk the floor until the child is tired out, and at last falls asleep from utter exhaustion. The next day the unhappy mother goes about pale and jaded, and wonders why her children are so "nervous!"

After a winter of this regimen comes, perhaps, the second summer, with its trials and, in the city at least, its grave perils. If the child succumbs, or comes out in October from a long season of suffer-

ing, pale, puny, emaciated, who suspects that the seed was sown for this sad harvest away back in those winter days? Yet that is the exact truth.

The above is no fancy sketch. Its original may be seen any day in homes where one has a right to expect better things, and it is almost the rule in the households of the uneducated classes.

If, then, the baby cries at night, try and find out the cause. See if it be improper food, or an over-abundance of plain food; and when there is the least reason to suspect that it is either, never try to quiet the cry by crowding the stomach still more. If there is no fault in the digestion, there is almost always some discernible cause elsewhere. It may be too warm, or too cold, or uncomfortable dress, or an irritated skin. Opening a window for the admission of fresh air will sometimes do wonders.

If there is no physical discomfort, and the child cries from pure depravity, night or day, though I do not believe this happens once in a thousand times, I should take effective measures to stop it. A child a year old or more should not be allowed to scream frantically every time its mother leaves the room, or at any like trifle. Frequent and prolonged crying is an injury to the child. There are limits even to the allowable tyranny of the baby, and these should be imposed for its own good. A child that knows enough to do things which please him when asked, can be made to refrain from crying. The lesson of self-control cannot begin too early. It is a great pity

that nervousness and ill-temper have become interchangeable terms, or rather, the term ill-temper has been abolished, and the baby which was once unendurably "cross" is now only "nervous." Do not condone this fault too easily, or he will by-and-by take his revenge upon your weakness in a humiliating fashion. While I would have the tenderest forbearance for real nervousness, I would put a decided check upon the early manifestations of bad temper.

CHAPTER IV.

HOW SHALL CHILDREN BE DRESSED?

IT is the good fortune of the present generation of children that fashion now recognizes the necessity for protection of the neck and arms of infants, and the baby's dress no longer lacks that grace by whose absence good taste is forever offended — the grace of appropriateness.

The primary intention of dress being thus conceded, the modern high-necked, long-sleeved slip, descending a little way below the feet, meets the requirement. If means and leisure have not been wanting to the happy mother, the little garments may be charming in their dainty material, and the exquisite art of their making, but these are not missed nor demanded by good taste or comfort if the dress be clean and innocent of starch. Beneath is the soft-knitted or hand-made underwear, as few pieces as may be, and fitted with scrupulous care.

While the infant continues to wear long robes, these will, in most cases, be sufficient to keep the feet warm during the summer; but, if they are not, if the feet seem cold to the hand, soft woollen socks should be provided. When the long frocks are re-

placed by short ones, the stockings should be made as long as they can be comfortably worn. No pains should be spared to keep the lower limbs warm both in summer and winter. "Keep the feet warm and the head cool" is an old and golden maxim of hygiene. If the opposite of these conditions habitually exists, look out for illness sooner or later. The approach of some of the gravest forms of disease is indicated by coldness of the feet and abnormal heat in the head.

Let the baby wear, in winter, warmly-lined shoes, chosen for comfort and not for show. Every one knows that the bowels should be protected from chills; but this care of the extremities is quite as important. And not the lower extremities only. Keep the arms well covered, and do not let the little one go with cold hands. As soon as the child is old enough to wear them, the woven union under-garments of merino will be found an adequate protection. Home-made garments of flannel are still better for warmth, and if nicely fitted, and the seams made and kept smooth, they will be very comfortable.

The baby, creeping about the carpet, or the older children at play in the corner, are exposed to all the draughts that enter beneath the doors and base boards of our shabbily-built houses. The costly marble front is often as faulty in this respect as the frame cottage. Sometimes the little one is just tall enough to reach the bottom of the window-sash. There are insidious draughts here, too, which pro-

voke sore throat and catarrh. Weather-strips are useful to shut them out; in their absence it is a good plan to paste strips of paper across where the lower sash shuts down against the sill, leaving the upper sash free to be lowered at pleasure. If the doors swing inward, thick rugs placed outside will help exclude the cold air. But whatever precautions may be taken, the child should still be warmly dressed. For out-of-door wear woollen leggings should be provided. For children old enough to run about, the gossamer rubber cloth serves an excellent purpose for rainy weather wear. It may be bought by the yard, if desirable, and made up at home. If worn only in wet weather, and replaced at other times by woollen, no harm will arise from retained perspiration. A circular cape of the same material should be a part of every little school-girl's equipment.

Although so much has been said against sacrificing the health of children, little girls especially, to irrational fashions, there are still mothers who are deaf and blind to all admonition. A few days since I saw a lovely, delicate little girl of seven or eight, coasting on the pavement. The snow was melting, and yet there was a bitter wind. The little lady's navy-blue cashmere was prettily cut and trimmed. She had a fur-bordered sacque and fur-trimmed gloves. But the slender legs were covered with cotton stockings, and French kid boots with French heels were on her feet. "But," says some one, "she doubtless wore long flannel drawers, reaching to the

ankle." Admit that she did, and suppose the stockings had been woollen instead of cotton. Here are but two thicknesses of fabric between the sensitive skin and the frosty winter air. Your boy and your robust husband have also their flannel drawers; over these the warm woollen stockings; the pants come to the ankles, and are, perhaps, lined; besides all these the leather boot-tops, impenetrable by cold.

An old and distinguished New York physician wrote as follows:

"There can be no doubt that the style of dress used for children in this country must occasion many and repeated attacks of croup, which might just as well have been avoided." And again: "We are perfectly well convinced that this faulty and unreasonable system of dress, which is chosen because it is the fashion, will explain in part the enormously greater frequency in children than in adults of the various diseases of the lungs and air-passages produced by cold."

Since this was written, fashion has made large concessions to good sense, and a more reasonable style of dress prevails, but by no means so generally as it ought.

Let me also urge warm clothing for the lower limbs on the score of esthetics. A well-developed, round, plump leg has a beauty which every one recognizes. Especially do we demand plumpness and roundness in childhood. When the limbs are inadequately clothed, not only the vitality of the body

is reduced, but the temperature of the exposed part is lowered. From both of these causes the nutrition of the part is impaired. Hence the spindle-shanks which prevail among fashionably dressed children.

"But," says an objector, "the children of the poor are half-clothed and half-fed into the bargain, and they grow up healthy."

This is a great mistake. Multitudes of them do not grow up at all. Death finds his richest harvest in the slums of the city, and among the poor and ignorant. Nor, if they grow up, are they especially "healthy."

It is altogether an error to suppose that vigorous health and poverty are always or usually found in conjunction. The ill-cared-for children of the poor are liable to many diseases which the children of the more fortunate classes escape, or may escape. When there is not inherited disease, if the children of the well-to-do family are not healthy, it is almost always the fault of the management. In the struggle for life, their chance is infinitely the best.

Do not remove the high-necked and long-sleeved under-garments, that the child may go to a full-dress children's party. These absurd affairs are the apotheoses of parental vanity and the culmination of all that is most foolish and artificial in our society life. If the child goes to dancing-school, or to any entertainment where she is liable to be overheated, some careful person should be at hand with plenty of warm wraps for out-of-door wear. Young children

had best wear flannel under-clothes the year round; and remembering that winter, in our climate, lasts nine months of the year, and is liable to relapse any time in the remaining three, we must be on our guard against sudden changes. When the wind veers to the north, or an icy blast sweeps down from the mountains or in from the sea, put on the warm dress or the thicker flannel *before* the child takes cold.

CHAPTER V.

EXERCISE, AIR, SUNSHINE.

IN a climate like ours, which forbids out-of-door exercise a large number of days in the year, not more by its rigorous cold than its intense heat, the question of exercise in the open air becomes sometimes perplexing. As to the exercise itself, there should be no question. The young animal, human and other, "feels its life in every limb," and this exuberant vitality impels it to incessant action.

The healthy puppy alternates sleep and play; and the one is as essential to his growth as the other. To chain up the puppy or compel the child to sit still for any great number of consecutive minutes, is a crime against nature, which that august force is apt to avenge by stunted or unhealthy growth.

There is, indeed, a vast difference in children as regards their love of play. With many it is an urgent impulse, which allows them hardly a moment's quiet. These indefatigable ones need often a salutary restraint. A short rest should now and then be enforced, remembering always that the hour which flies for the busy adult is a long age to the little one. Less often we are under the necessity of coaxing the

child to play. The child that creeps into his corner with a book while his companions are at play, is an unnatural child. It is true that he may be an embryo genius, but it is much more likely that his vitality is low, his blood poor, his digestion feeble, his brain precocious, his temperament morbid. We can better afford to run the remote risk of quenching the spark of genius than meet the certainty of a life made miserable by ill-health, signalized only by its capacity for suffering.

It is best that as much of this necessary play should be done out of doors as the climate will allow. Protected by flannel under-clothing, warm woollen stockings, sensible frocks and wraps, and thick shoes, healthy children over two years old may go out any sunny day when the mercury does not fall too low. By too low, I mean any lower than twenty-five degrees above zero. A child two or three, or even four years old cannot take exercise active and constant enough to warrant exposure to any lower temperature. Older children, particularly if they are robust, can venture out when it is somewhat colder, and, with the rainy-weather garments mentioned, we need not fear for them a little mist or snow. But when they come in, warm, dry stockings and shoes should be put on, and, if the feet have been long cold or damp, a hot water foot-bath is an excellent precaution against taking cold.

Children should always be encouraged — compelled if need be — to play in the sunny part of the yard

or street in cold weather. A temperature which is comfortable in sheltered, sunny places, may be killing on the north side of a building, or in a windy alley, and, besides the comparative immunity from cold, the sunshine is as good for them as the fresh air. For young children this caution is still more necessary, and they should be allowed to go out only during the middle of the day. Then they get the benefit of both air and sunshine. The sun-warmed air is what they need. There is a popular notion that the colder the air the purer it is. Those who repeat this would, I fancy, be puzzled to give a sound reason for the belief. What makes air impure? If you say septic germs, I point to the fact, that with the mercury in the vicinity of zero, diphtheria and scarlet-fever live and thrive and are borne about our cities. Small-pox, also, is more virulent and active in cold weather, and a season of intense heat falling upon an epidemic of this disease, sometimes effectually kills it out.

If noxious gases make air impure, they are to be shunned in cold as well as warm air. They may be less apparent to the senses when the air is cold, but they are not less destructive to life. In warm weather, decomposition of animal and vegetable matter goes on much more rapidly, and air saturated with this effluvia is of course unwholesome. Yet in miasmatic districts, the danger from malaria is not nearly as great while the weather continues warm. With the cooler weather of autumn come the agues

and bilious fevers which afflict those localities. Warm air is just as pure, that is, just as rich in oxygen, and just as free from noxious elements, provided it has not been unnecessarily contaminated in warming, as cold air, and infinitely better for the delicate respiratory organs of young children. For this reason, I think it desirable that children under two years of age be kept in the house during the winter. I am aware that some distinguished authorities think differently, that many recommend taking even infants out on pleasant days in winter; but I hold with another school, which believes that a change from a summer atmosphere in-doors to the cold air outside is far too great for the delicate respiratory apparatus of the young child to encounter, and that there is no compensating advantage to balance the risk. Would n't I give the baby any fresh air, then? Certainly, I would; not for ten minutes or half an hour once a day, but all the time. Ventilate the house thoroughly. Open the window for a few minutes every two or three hours, keeping the baby out of the draught. Some day, perhaps, we shall have a system of ventilation that will work easily and well, but, at present, we must make shift with doors and windows, and in no house where the windows can be lowered from the top need the family suffer for want of pure air, unless, indeed, foul gases enter from the sewer. If your plants thrive, your children will thrive also. A plant-stand in a living room is a sort of vitaometer, indicating whether the conditions of the atmosphere

are competent to sustain life. For ventilation at night, the following plan is a very good one. Raise the window as high as you choose, and have a board exactly fitted to the aperture made by raising the lower sash. You have then in the space left between the two sashes a perfect ventilating shaft, with an inward and outward current, and no possibility of a draught upon any part of the room.

There is a prejudice against night air which can only be justified in malarious regions. On the Campagna the night air is death, and on the Western prairies it is fever and ague; but elsewhere, in elevated regions, and wherever there are no noxious emanations from the soil, night air is innocuous. Florence Nightingale remarks that in great cities the only pure air to be had is the night air. The great factories are then still, the thousand fires are quenched, the dust settles on the pavements. Every one who goes abroad at night or who sleeps with open windows recognizes the purer atmosphere of night, — purer, not because it is cooler, but from the absence of that which makes the day air impure. Miss Nightingale further asks very pertinently what kind of air one expects to get in the night time. You cannot breathe the day air in the night, she says. Your choice is between foul night air and pure night air. But most people manage to breathe the day air in the night. They hoard it up during the day, and, having already breathed it over several times, continue to breathe it over in calm unconsciousness. For them, the class

of careless builders is a dispensation. For their behoof exist the cracks under the doors and the crevices about the window-sash, which I proposed to seal up by pasted paper. But this would better not be done unless pains be taken to admit fresh air by proper channels. If we can trust ourselves to do this, it is better to have the admission of fresh air within our own control.

I would object to children being abroad in the evening as a general rule, both because they should go early to sleep, and because the air, unwarmed by the sun, is less beneficial to them. But the early morning air is equally noxious. The dew-drenched earth is then giving off vapory exhalations. In malarious districts the morbific agent is abroad and active in the early morning. Later, when the sun has warmed the air and the particles are in motion, the evil principles are dispersed. This is the reason why, in all malarious countries, the traveller is warned not to go abroad early in the morning. The advice is sound, and rests upon sound reasoning as well as long experience.

I should add that in the city all this is, in a measure, changed. I have spoken of the purer night air in the cities. It is also much less damp than it is in the country, after nightfall. The walls of the buildings continue to radiate heat long after dark. The streets and pavements are dewless. In the hottest weather the only endurable part of the day is after dark, and I do not see why the children should

be excluded from the refreshing coolness which rests as much as sleep, and, indeed, invites sleep. They should be properly protected, of course, and not kept up too late. The child who goes to bed at seven in the cool season, may well enough sit up till nine in the hottest weather, if a long nap has been taken in the middle of the day. This mid-day nap not only refreshes, but it keeps the child quiet when exercise would be an injury, for, in mid-summer, the hot sunshine is as baleful as at other seasons it is life-giving. Children should not be allowed to play in the sun after ten o'clock in the morning, or before four or five in the afternoon in the hottest days, and young infants should not be taken out in carriages.

Keep the baby cool by frequent baths, light clothing, and quiet. Excessive heat is as fatal as cold; cholera-infantum is as much to be dreaded as croup and pneumonia.

Do not, however, put the baby to sleep in a cool parlor from which sunshine is all the time sedulously excluded. One sometimes goes into such apartments from the warm, outer air, and presently shivers. How must it fare with the baby? No room can be kept quite free from dampness where sunshine is not admitted. Let the sunshine glorify the room for two or three hours, even on the hot days of summer.

One word in regard to the exclusion of light and sunshine from the room where the baby's life begins.

A twilight gloom is maintained, often for weeks, on account of the baby's eyes. This entire exclusion of light is an error. The admission of sunlight may very properly be regulated, but there should be a soft and pleasant light in the room for the sake of both mother and child. The baby need not and should not be carried into a flood of sunshine, but it should be gradually accustomed to the light.

CHAPTER VI.

INFANT DIET.

IT was incidentally remarked, in an earlier chapter, that the mother's milk was, as a general rule, the most suitable food for the infant. This seems so reasonable, and is so universally admitted, that an elaborate argument in favor of the proposition would seem to be superfluous. The mother's milk is best for the baby simply because it contains precisely the substances essential to the development of the growing tissues in a suitable form for easy assimilation. It is a provision of Nature, and, theoretically, requires and tolerates no amendment or interference. But, unfortunately, the wise designs of Nature often fall short of accomplishing their purpose. Some malign influence interposes to set them at naught, and new conditions are established which must be properly met. Instead of the mother's milk supplying the best possible nourishment for her infant, it may be lacking in important constituents, for want of which the baby suffers; or the milk may be so impaired in quality as to be actually deleterious; or, for physical reasons, the mother may be unable to nurse her child; or she may be afflicted with some

constitutional disease, which makes the milk unfit for nutrition; or, the infant may have some congenital deformity or debility which incapacitates him for the act of nursing; or the milk, while unimpaired in quality, may be so deficient in quantity that the child suffers from inanition.

We have now to consider how the various inadequacies in Nature's arrangements may be supplied; and first, let it be stated, as a rule, that whenever, from any cause, it is impracticable for the mother to nurse the child, a good wet-nurse should be procured. Parents should not grudge the extra expense and trouble needed to secure this chance of saving their child. Even when the question of expense is a vital one, a wet-nurse would, in most cases, be the best economy in the end, giving the child a good digestion instead of a bad one, sparing the mother an incalculable amount of anxiety and care, and saving bills for medical attendance and nursing. The evil of an impaired digestion does not end in infancy, but a sickly childhood, a feeble youth, and a semi-invalid condition for a whole lifetime may be entailed upon a child by parental carelessness or penuriousness.

If the child should have hare-lip, or be tongue-tied, and a mechanical obstacle is offered to the act of nursing, it must be artificially nourished until a suitable time arrives for correcting the fault; or, in some cases, when the deformity is such that an insignificant operation would remedy it, the baby may

be fed on breast-milk for a short time, until this operation can be performed.

In cases of profound debility in the new-born, artificial feeding is the only resource. But repeated and persistent effort should be made very early after birth to induce the baby to take the breast. Children will sometimes nurse satisfactorily at first, but presently fall ill, and afterwards refuse to nurse, even after recovery, which, however, is much less likely to occur if artificial food be given. Let the baby be fed upon breast-milk during the illness, and as long after recovery as possible. Even a week or two is a gain. The longer the unavoidable resort to artificial diet is postponed the better is the baby's chance.

If there be a fault in the gland which renders the prehension of the nipple impossible to the child, effort should be made to overcome it; but this condition should have been recognized months before and remedied in season, as it almost always can be.

Sometimes the mother is unable to nourish her child from sheer debility,—much oftener, I am afraid, from an imaginary weakness, from vanity, from unwillingness to submit to the necessary confinement, and other inadequate reasons which an easy-going doctor accepts, but which an active and urgent sense of duty on the part of the mother would speedily set aside.

Apart from the welfare of the child, there are cogent reasons why mothers should nurse their offspring. The exercise of that function favors certain important

physiological processes whose complete performance is essential to future health and vigor. The mother who does not nurse her child, runs a risk of subsequent invalidism which she would not otherwise incur.

Where the mother has actual disease, such as consumption or epilepsy, or where there is any strong or well marked diathesis as the rheumatic or scrofulous diathesis, it is best for the child that it should not subsist on the mother's milk. "Many a woman," says Dr. Jacobi, "raises at her breast sickly, bloated, rachitical children, until at last one is born which she is quite unable to nurse, and then for the first time appears in the family a noisy, ruddy, muscular baby."

A well-pronounced, scrofulous diathesis should contra-indicate maternal nursing, especially if a wet-nurse is practicable.

In the system of the rheumatic patient there is probably an excess of lactic acid, as indicated by acid perspiration and other symptoms. This may be so great as to acidify the milk, and even become a cause of rickets. The evil may be modified by the drinking of alkaline waters by the mother; but a wet-nurse, if practicable, is also in this case the best plan.

There is a large class of women who have no actual disease and no diathesis which interdicts nursing, but who are yet incompetent to the adequate nourishment of their infants from simple anemia, or

impoverishment of the blood. This may have resulted from any cause which has been a drain upon the system, or it may be the normal condition appertaining to a delicate constitution. Much may be done by judicious medical treatment and hygiene to remedy this imperfection. A wholesome and abundant diet for the mother and a good digestion are the first essentials. If the digestion is weak, it may be improved by remedial in conjunction with hygienic measures. Artificial digestion by the substances now so much in vogue — pepsin and lactopeptine — will often temporarily serve an excellent purpose. The food should be light and nutritious, the usual proportion of nitrogenous to non-nitrogenous food — 1 to 4 — being maintained. By this I mean that the nursing-woman need not consume a greater proportion of milk, meat, eggs, etc., to her oatmeal, bread, etc., than usual. A larger relative proportion of well-ripened fruit is proper and will be found of service. If an excess of fluids seems to be required, it may be found in chocolate, oatmeal, and cornmeal gruels, crust coffee, and in any other wholesome, nutritive beverages. Stimulants, as wine, beer and the like, are not required to increase the secretion of milk. They may do so indirectly by supplying a transient stimulus to debilitated patients; and when great debility exists, and neuralgic pains, particularly in the breast, are present, they are often of much service. They should be employed with a certain restraint in order not to lose the good effect. Malt liquors are

preferable to wine, and a third of a glass of porter twice or three times a day is better than a larger quantity.

In warm weather, when the skin is active and perspiration abundant, the demand for fluids is more urgent, and, unless supplied, the water of the milk is diminished, and it is made indigestible in consequence.

The baby, fortunately for his comfort, is so made that he can free himself from a superfluity of food, or from indigestible food. This results from the position and shape of the stomach. In the adult this organ lies transversely in the trunk, dilated at its centre, and constricted at each extremity somewhat like a flask. The baby's stomach is more nearly a straight tube, only slightly dilated at the centre, and it lies obliquely, indeed almost vertically, in the trunk. Vomiting in the infant is a much more easily performed and less disturbing process than in the adult. An excess of food is easily thrown off. Some hint as to the suitability of this food, and the condition of the digestive fluids, may be gotten by observing the rejected matters. The milk may be returned from the stomach because of over-feeding. The baby has taken more food than the digestive fluids, which his stomach secretes, can digest. Now, when the baby is over-fed, there is also another special cause of indigestion. Over-feeding means too frequent nursing. Too frequent nursing means too rich milk. The longer the milk remains in the breast, the thin-

ner, that is, the more watery, it becomes. If drawn very frequently, the fresh secretion is taken, which is always comparatively richer in the solid constituents, and especially in its chief solid — caseine. So that by too frequent nursing the baby's stomach is not only overloaded with superfluous food, but that quantity which he could and should digest is made difficult or impossible of digestion by being too rich. A new-born babe, nourished at a healthy breast, should be nursed only once in two hours; and five meals a day are sufficient for a child eight or ten months old. This rule assumes that the milk is of good quality. If the milk is poor the baby will suffer hunger, no matter how frequently he is nursed. Observe the manner in which the child takes the breast. If hungry, he will nurse eagerly and require no coaxing. If the milk is known to be too thin — deficient in solids — it would be better to draw it more frequently, unless the want is met by artificial diet.

The vomiting, which comes from an overplus of food, occurs very soon after nursing, and the milk is returned curdled. The baby shows no signs of illness, and the digestion is really very slightly disturbed. But there may also be a true indigestion. The digestive fluids are deficient in certain important principles, irritating acids are generated, the undissolved and insoluble products of imperfect digestion irritate the stomach still farther, until at last, after much pain and discomfort, the mass is rejected, or, failing this, a gastro-intestinal catarrh, with resulting

diarrhœa, is set up. If vomiting occurs, the fluids ejected will be of a soapy consistency, and the solid matters hard and tough.

Still another kind of vomiting indicates serious disorder, either deficient or impaired secretions. The milk is returned unchanged, digestion not having been begun.

These different conditions require different treatment, and the most promising plan depends chiefly upon a proper adaptation of food, and a very sparing use of medicine.

If the milk is found to be too rich in caseine, the digestion may be promoted by diluting the milk. In the bottle-fed child this is frequently done; but it is just as easily effected for the nursing baby by giving a tablespoonful of pure water or gum-arabic, or weak barley-water, just before nursing. In warm weather, it must not be forgotten that the baby may require water as much as any one. It will certainly do so if the mother's milk is deprived of its water by free perspiration. It can do no harm, and often does much good, to give a few spoonfuls of water three or four times a day in hot weather.

For bottle-fed babies, the following preparation is recommended by very high and experienced authority: Boil a teaspoonful of powdered barley and a gill of water, with a little salt, for fifteen minutes; strain it, and mix with it half as much boiled milk and a lump of white sugar.

This is to be fed through a nursing-bottle, which

must be kept perfectly clean and sweet. For babies five or six months old, a larger proportion of milk may be given—half milk and half boiling water. For still older children more milk in proportion. If the child is constipated, substitute oatmeal for the barley. When the breast-milk is insufficient, it may be supplemented by this food. There is no provision made in young infants for the digestion of starch, and those cereals containing the least starch should always be chosen.

In hot weather, great care should be taken that the food is not sour. Test the milk by a strip of blue litmus-paper, which may be procured of the druggist. If it turns red, prepare a fresh portion.

Cow's milk should have an alkaline reaction. Add one or two grains of soda to each meal; or, better, a teaspoonful of lime-water to each pint of milk.

Have the milk pure. If it does not give a good cream, add a little to the food. When milk and water is used, from one-half to two-thirds water is the proportion for young infants, to be gradually diminished as the child grows older; but the barley and oatmeal, prepared as above, are preferable to plain milk. Condensed milk often suits very well, and is certainly much better than unwholesome fresh milk. But some experienced observers are of the opinion that children do not thrive perfectly well upon condensed milk. They grow large and fat, but are not strong, fall ill more easily, and in general are less vigorous.

It is safer to use the milk from a large herd than from one cow. This is contrary to the commonly received opinion, but it rests upon the fact that hardly an animal in the herd escapes transient illnesses that affect the milk. If the milk from the whole herd is mingled, the impaired milk is so abundantly diluted that no appreciable effects ensue. Goat's milk is sometimes used, but it is doubtful if it has any advantage over cow's milk properly prepared.

One rule should always be observed. If the child is doing well, let it alone. Do not change either the nurse or the artificial food, if it can be avoided. Infants should be weaned when from nine to twelve months old, unless it be summer, when weaning should be postponed till cool weather. Never wean a child in summer, if you reside in the city, unless it is inevitable. If the natural food is insufficient, a mixed diet is the next best thing. It is desirable that the weaning should be gradual. At six months old a baby may have beef-tea or plain soup once a day. It may suck rare beefsteak, but should not swallow a particle of the fibre. Crusts of bread, very soft boiled rice, tapioca, and sago jellies, sea-moss blanc mange, panada of biscuits, etc., may be allowed a few months later. But do not be in a hurry to give these things. The baby will do better on the liquid foods, and start in life with a sounder digestion, if restricted to them for the first year.

The following preparation has the sanction of an

eminent physician and specialist in children's diseases, who says that, after an experience of twenty-one years in its use, it has never disappointed his expectations: Take one scruple of Russian isinglass — a piece two inches square of the cakes in which it is sold — and soak in cold water. Then boil in half-a-pint of water fifteen minutes, or until it is quite dissolved. Now add milk and cream — for a child a month old from three to four ounces of milk, and one-half to one ounce of cream: a little sugar, salt, and a teaspoonful of arrow-root, which has first been wet up in a little water, the latter being added to the water while it boils. "This," says the doctor, "will agree, when nothing else will." The proportion of milk and cream may be increased after a time.

CHAPTER VII.

INDIGESTION.

THE perils which beset infancy and childhood are so numerous that there is, perhaps, reason for wonder that the mortality among children is not even greater than it is. Much greater it could not be, and give the race any chance for a long survival. If the nursling resists the officiousness and ignorance (where these exist) of his natural or selected guardians, he has yet to run the gauntlet of what are known as children's diseases, and among these are some of the most formidable disorders that afflict the race. The zymotic diseases, from which we are not yet able to protect ourselves, are largely represented. Croup, scarlet-fever, diphtheria, are among the most terrible of these foes. Typhoid fever is a possibility of childhood. The minor miseries of mumps, measles, and whooping-cough, the adult shares with the child. He is not exempt, any more than his parent, from pneumonia, phthisis, small-pox, or intermittent.

Now, although it is undoubtedly true, that the most robust and vigorous child may fall a victim to acute disease, like the malignant form of scarlatina, it is also true that a good constitution, unimpaired

by early and wasting sickness, has the best chance, *ceteris paribus*, of resisting the maladies which await the child, and the acute stage past, the remote dangers are infinitely less. A healthy infancy goes far towards insuring a healthy childhood, although a puny infant will occasionally, under good treatment, or a happy conjunction of circumstances without treatment, recover wonderfully, and grow surprisingly strong and fat. But this is not to be expected. One should watch for the early symptoms of disease, and treat them in time.

A hitherto healthy baby perhaps loses flesh, the tissues that have been plump and firm grow soft and flaccid. The baby is restless and feverish. Constipation or diarrhœa occurs, or the two are alternated. If this persists for some time, and no acute disease is developed, it is probable that the child is suffering from infantile dyspepsia or indigestion. Mothers are apt to attribute all the trouble to dentition. That the baby is teething is thought enough to account for almost any symptoms of illness. This is an unfortunate error, since it leads too often to neglect that results in injury. Dentition is certainly a cause of disturbance in the system, and this disturbance may sometimes be quite serious, but it by no means originates the majority of childish illnesses.

Any of the diseases common to childhood may occur in the infant during dentition, entirely independent of that process. By the time the child has reached the age when signs of the first teeth appear,

the salivary glands are so far developed that the secretion of saliva is considerable. This drooling, as mothers call it, is salutary. It lubricates the gums and tends to make them supple. At this period, a coral, ivory, or hard rubber ring is useful. The engorgement of the salivary glands, and the distention of the gum by the coming tooth, produce a sensation which the child seeks to relieve by biting whatever he seizes. A little later, when the gum is inflamed and sensitive, a soft substance is preferable. If the gum is tense and swollen, and there are thirst, fever, and flushed cheeks, the child should be seen by a physician. This may be the fever of dentition, pure and simple, or it may be some dangerous complication.

If the case is so mild as not to justify a call upon the doctor, soothing applications to the gums, like honey of roses, borax and honey, syrup of gum-arabic, will relieve. If the bowels are constipated, an enema or a mild laxative may be given, and a warm foot-bath made use of at bedtime. Lancing of the gums is sometimes necessary. It is a harmless operation, if judiciously performed at the proper time. Of this the physician can judge. Rubbing the gums with a thimble is a very harsh and unjustifiable piece of domestic surgery.

Another favorite theory always at hand when a child falls ill, is that he has worms. The chances are ten to one that he has indigestion. In infants and children, the mucous membrane of the alimentary

canal is peculiarly susceptible. The quantity of mucus secreted by it is normally large. The slightest irritation stimulates the secretion, and a morbid habit is rapidly established. These disordered secretions furnish a nidus for intestinal worms. They may coexist with the intestinal irritation, but they are not the cause of it, unless, indeed, they are very numerous, and then the effect becomes, in turn, a cause.

It may be safely said that a majority of bottle-fed infants suffer from indigestion, and not a few nurslings. When, therefore, the baby pines, grows feverish, has constipation or diarrhœa, a sour breath, etc., it is not best to acquiesce in it as an inevitable consequence of teething, but we should try to discover the real cause. He is, perhaps, over-fed with suitable food, or fed with unsuitable food, or, in rare cases, he is suffering from inanition. Of these causes, over-feeding is incomparably the most frequent. I have already spoken of the character of the matters vomited, as indicating the state of the digestion. If food passes out of the stomach undigested, it will irritate the bowels more or less in its passage through them. A diarrhœa is thus set up. The ordinary summer diarrhœa of children results from a high temperature acting upon a system already disturbed. It begins almost always in indigestion. The normal color of the fæces in infancy, is yellow. In gastro-intestinal disorders, the color is changed. Although yellow when passed, they soon become of a greenish hue. In diarrhœa, the stools are frequent, offensive,

greenish in color (sometimes bright green), and hold in solution undigested caseine in minute grains or large lumps. If the child is fed upon the ordinary diet of adults, any of the food taken may reappear in the stools.

Or, there are frequent attacks of colic. The little sufferer grows white, especially around the mouth, writhes in pain and screams violently. Coincident with this flatulence is usually constipation, though this may give way during or after the attack to diarrhœa. The diarrhœa is sometimes attended with great pain, particularly if it persists for some time; the susceptibility of the membrane is increased, and the hard, undigested substances lacerate it in passing. When diarrhœa and constipation alternate, there is apt to be a great deal of mucus in the stools; sometimes a little blood, constituting true dysenteric symptoms. These should receive prompt attention.

If the cause of the indigestion is found to be overfeeding, it will sometimes be sufficient to reduce the number of meals. Much more often, however, a change of diet is required. Nothing should be given but food suitable for infants and children. If the child has been fed freely upon starchy foods, it is quite likely that the trouble lies here. This point is so important, and so little understood, that I wish to call special attention to it. Starch does not undergo digestion in the stomach. It is first acted upon by the saliva. After it passes into the stomach, its digestion is suspended, until it escapes thence into

the small intestine. Here it comes in contact with the pancreatic juice, a secretion from the pancreas, a large gland in the abdomen, whose office is, among other things, to carry forward the digestion begun by the saliva. The pancreatic juice is almost identical with the saliva. In the intestine, also, there are small glands similar in construction to the pancreas, and they probably resemble it in function. Until the age of three months, the salivary glands secrete only a very small quantity of saliva. After this the secretion increases slowly, but remains insignificant for some months. These remarks apply equally to the pancreas and its secretion.

It follows then, that, if we feed the young infant with starchy foods, we give him a material for whose digestion his system has no adequate provision. Until the age of three months, all starchy foods were better prohibited. Afterwards, they may be given with caution, increasing the quantity very gradually. If diarrhœa occurs, it is best to withdraw them altogether until after recovery.

Rice, potatoes, tapioca, farina, corn-starch, arrow-root, are all best avoided for the young infant. Oatmeal and barley contain a comparatively small proportion of starch, and these two furnish, when combined with milk, all that can be desired of a nutriment. Barley is, perhaps, more digestible, and is to be preferred when there is diarrhœa. Oatmeal should not be used in this case, as it is decidedly laxative, and for this reason is of great service in constipation.

Both should be thoroughly cooked and strained before using.

Trial may be made of the preparation of gelatine, milk, and a very small quantity of arrow-root, so warmly praised by Drs. Meigs and Pepper, and for which a recipe was given in the last chapter. Liebig's Food for Children (Horlick's preparation) will sometimes suit excellently. I have had the best results from the use of Ridge's Infant's Food. If fresh milk disagrees, condensed milk may often be employed with advantage. If the indigestion persists, the diarrhœa will become chronic; and the parent will find an opportunity for testing the value of a wide variety of articles. Let the experiments be made intelligently, and in agreement with accepted principles.

CHAPTER VIII.

INDIGESTION — CONTINUED.

THERE is sometimes a true indigestion of fluids, and the question of diet becomes a more difficult one. Meat jellies are sometimes useful in cases of this kind. It will also be well to make trial of raw meat, scraped to a fine pulp, and properly seasoned. If the child refuses it, mix the pulp with a little powdered cracker, roll and flatten it into a small, thin cake, and lay it for a minute or so on a hot griddle, turning it over when slightly cooked. Its digestibility will not be impaired, and it will be made more palatable. Rare beefsteak, or the juicy cuts from the roast, may be given the child to suck. Beef-tea, mutton, and oyster-broth, may be tried. If they do not agree at first, make them very strong, and give in small quantities. If they seem to increase the diarrhœa, give them cold and without seasoning. Essence of beef and mutton may be made by chopping the lean meat, and placing it in a fruit jar or bottle, corking tight, and putting the vessel to boil for three hours in water. When done, the fluid portion in the bottle may be drained off, seasoned, and administered by the teaspoonful. When there

is fever, as there often will be, beef-tea made as follows may be given, if it does not disagree: Take a slice of round steak, or any similar piece, and broil on a griddle, over coals, as for the table, omitting to pound it. Then lay on a plate, and with a sharp knife cut in close lines, crosswise and lengthwise. Turn, and repeat the process on the other side. Place in a saucepan, adding to a pound of beef a pint of boiling water; salt and leave it to simmer on the stove for about half an hour. Beef-tea prepared in this manner has a much finer flavor than when made by boiling as for soup, and the quickness with which it may be extemporized recommends it. Liebig's Extract of Beef is a capital thing to have at hand. These preparations of beef, however, sometimes seem to exasperate the diarrhœa in whatever way they may be prepared and given. Should they do so, they must be abandoned for a time, but later, when the diarrhœa is checked, and the child is in need of stimulating nourishment, they may suit admirably well. Raw egg custard is sometimes useful. Nothing more is necessary than to beat up the egg with sugar, and add cream and milk, or part cream and milk, and part water. If alcoholic stimulants are employed, this is a good vehicle for them.

If the child is feeble, stimulants are in most cases demanded. Do not let the baby die for a theory, or a mistaken application of ever so sound a principle. However unnecessary alcoholic stimulants may be in health, they certainly do tide us over dangerous

places in illness. If they give no real strength, they at least supply a transient stimulus, and by its means food may be digested, and tonics given time to act, and thus a natural and permanent improvement secured.

Hygienic measures must not be forgotten — stimulating baths, rubbing with the hands, inunctions with cod-liver oil, fresh air, warm flannels, the flannel bandage over the bowels, sunshine, rest, and abundant sleep are all essential factors in the cure. Travel in railroad-cars often seems beneficial. So, too, are short excursions on the water and easy motion in a carriage. Removal to the country is the means of carrying many a child through that fateful second summer. The locality is, however, all important. See that no epidemic is prevailing in the proposed resort, and avoid low, malarious districts. Benefit is sometimes obtained at the sea-side, but the hill towns and the mountains are still better. Keep the child quiet and cool, shunning heat, but guarding against a chill.

To return now to the considerations of symptoms. It is not to be expected that a physician should always be at hand, and the early stages of these ailments may often be successfully treated by the mother. Be sparing of medicine, and do not try every nostrum recommended. If, in diarrhœa, the stools are green, or of a greenish hue, there is an excess of acid in the bowels. This may be corrected by alkalies. From one to five grains of bicarbonate of soda may be given in a little water. Chalk mixture may be given

in teaspoonful doses, and repeated several times in the twenty-four hours. This is an innocent and favorite remedy. If undigested caseine appears in the stools in large quantities, the milk must be diluted or withheld altogether. Lime-water is especially useful here, and may be used as a diluent to the extent of one-third. Pepsin is of great service in the indigestion of children. From one to five grains, according to the age, may be given dusted in a little milk. If there seems to be much pain, aromatics may be added to the alkaline mixture, — a few drops of essence of peppermint, or a teaspoonful of syrup of ginger. These so-called simple remedies must be used with caution, as they are really powerful stimulants, and, should there be decided inflammation, would do harm. Warmth to the feet and hot flannels to the stomach and abdomen with gentle friction will often effect a cure in simple colic. Do not lay a child, suffering from colic, prone on its back. Hold it partly erect, or lay it upon the knees with the face downward. For medicine, nothing is better than syrup of assafetida; a teaspoonful of this may be poured in a glass with twice as much water and a few drops of essence of peppermint or syrup of ginger added. Give in teaspoonful doses, and repeat if necessary. It is entirely harmless and very effective. If the hot flannels and the medicine act too slowly, the stomach and bowels may be rubbed with camphorated oil, or a spice plaster may be applied. The formula for spice plaster is two ounces of powdered

ginger, cloves and cinnamon an ounce each, and two drachms of capsicum; mix with tincture of ginger and honey. For babies, I should omit the capsicum, and for many cases ginger alone, mixed with hot water, will do very well.

Opiates should never be given to an infant, except by the physician's orders. If pain does not yield to external warmth and friction and the simple aromatics and alkalies, the doctor's advice is certainly required. Avoid the use of nostrums whose composition is a secret. All these preparations, which are not actual frauds, contain powerful drugs. The basis of all soothing syrups — Mrs. Winslow's included — is either opium, or some equally potent narcotic. Children do not tolerate well opium in any of its preparations; and no nostrum containing it is a safe domestic remedy.

If the simple diarrhœa of indigestion is not early cured, it is apt to pass into entero-colitis, or intestinal inflammation, which will be likely to become too grave to be treated by domestic remedies. If treatment is attempted, great good may be done by external applications. Warm linseed-meal poultices over the bowels are invaluable. If there is severe pain, they may be mixed with a strong infusion of hops. The value of any poultice is in its warmth and moisture, and this may be retained by a covering of oiled silk.

This is the disease which, in its severe manifestations, is often called cholera-infantum. It may de-

velop into that by neglect or bad treatment, but true cholera-infantum is rare. It strikes suddenly, and sometimes terminates in a few hours. Vomiting and copious watery discharges are characteristics. The latter symptom is always ominous, and remedial measures, to do any good, must be taken promptly.

In simple diarrhœa, astringents may be used with the alkalies. The *geranium maculatum*, often called crow's-foot or crane's-bill, is one of the best. From ten drops to half a teaspoonful of the fluid extract may be given, or a decoction of the root may be made in milk and water (an ounce to a pint), and given in doses of from a tea- to a tablespoonful. If dysenteric symptoms exist, astringents will do harm. Dysentery cannot safely be treated by an amateur.

There are several varieties of sore mouth common among children, all of them depending more or less upon unsound health, and especially gastric and gastro-intestinal disturbance. As a local remedy, a wash composed of half a drachm of borax, one drachm of glycerine, and an ounce of water, will be found efficacious. But the systemic disorder must be cured before the local trouble can be permanently removed.

Caution should be used in all cases in the administration of cathartics. Castor-oil is one of the best and safest. Syrup of rhubarb is useful where a secondary astringent is desired. Magnesia is a favorite children's remedy. If taken too long, concretions may be formed in the bowels. To prevent this, and make

it more soluble, it may be given in a little lemonade.

If a child is seized with vomiting after an overhearty or indigestible meal, promote it by giving warm water, or other insipid drinks, until the offending substance is ejected. If it persists after this, give a little lime-water in some milk — a tea- to a tablespoonful, according to age, or one to five grains of bismuth sub-nitrate. The spice-plaster on the stomach is very useful in vomiting. When vomiting occurs as a feature of chronic indigestion, or in the course of summer diarrhœa, it is to be similarly treated.

If a child is attacked by convulsions, do not be too much frightened. In a previously healthy child, convulsions are most frequently caused by some indigestible substance in the stomach. If this has been taken shortly before the attack, speedy relief will usually follow vomiting. To induce vomiting give a teaspoonful of syrup of ipecac, and repeat in ten minutes, if necessary. If some time has elapsed, a dose of castor-oil may be given. The child should be put in a warm bath, and the head bound with cold, wet napkins. If very plethoric, the half-bath may be substituted, the water coming up to the hips, not forgetting the cold applications to the head.

Hot foot-baths are always of service when the extremities are cold and pale; and a hot head, flushed face, and a full, throbbing fontanelle demand cold to the head, not, however, persisted in long enough to cause a reaction.

CHAPTER IX.

DISEASES OF THE RESPIRATORY ORGANS.

THE diseases which form the subject of this chapter are, in their grave forms, of so serious a nature, that any tampering with them, by inexperienced hands, is likely to lead to fatal results. I can only, therefore, indicate a simple method of treatment which will be efficacious in cases of slight illness, and will not be out of place if the graver and more dangerous disease is at hand.

Aside from the epidemic influence and the specific infection which produce diphtheria, croup, whooping-cough, and the like, the first and most important cause of all these troubles is "taking cold."

This accident of taking cold is so very common, and, in a majority of cases, so evanescent in its effects, that it is usually considered a trifling matter. It is not, however, so trifling as most people think. Aside from the suffering occasioned by a bad cold, which is not inconsiderable, there are thousands of cases in which a cold means death, sooner or later; thousands more in which it means an impaired constitution, and a semi-invalid condition for a lifetime. And this taking cold is, in a majority of cases, capable of being

prevented. Every one who reads this knows of families who are always having bad colds. Depend upon it, there is something wrong in the household hygiene. There is insufficient clothing, or the rooms are overheated, or there are avoidable draughts, or carelessness in some shape.

Children of a scrofulous or tuberculous diathesis are much more liable to take cold than those who are of a sounder constitution; and colds have, also, worse results in these cases. So much the more need is there of care and watchfulness on the part of the parent.

Unceasing vigilance is, in many cases, the price of exemption from colds. It is, however, worth while. It is easier to put on and take off the wraps and overshoes, ever so many times a day, than to nurse the little one through an illness. If mothers would be more careful, their anxieties might be vastly lessened. I do not mean to say that colds can be altogether avoided. In our climate, where the thermometer plays such surprising freaks in a single twenty-four hours, where the winds are so pitiless and the clouds so capricious, colds will often occur which seem dependent upon atmospheric changes; still, they much less frequently "come to" one than is commonly supposed.

The first symptom of a cold is, very often, a chill. It usually appears not far from twenty-four hours after exposure. A little later there may be a slight fever and more difficult respiration. Now, if a warm

bath be taken at this period, followed by frictions to the skin and warm covering in bed, so that a slight perspiration is established, the cold is aborted at the outset, and the child will be quite well the next day. These measures should always be employed with croupy children, or those who are subject to prolonged catarrh or cough after taking cold.

Sneezing is, ordinarily, an indication that cold has been taken. It may be the beginning of a severe nasal catarrh, which will ultimate in a bronchial cough. The warm bath is useful now, and it is proper to open the bowels, if constipated, by a mild cathartic. If the inflammation of the nasal mucous membrane is acute, as evidenced by profuse and scalding watery discharges, it may be mitigated by certain means. The inhalation of the vapor of hot water is sometimes soothing. A teaspoonful of spirits of camphor, in a cup of hot water, is very good for inhalation. Half a spoonful of laudanum may be used in the same way.

These remedies are, of course, not readily available for small infants. Sometimes all that can be done for them is to gently anoint the nostrils with a little olive oil, applied with a feather. A small handkerchief or bit of linen wet in water as warm as can be borne, will often give relief. Nursing infants suffering from snuffles, which is simply a cold in the head, or acute nasal catarrh, often find nursing so difficult that they will refuse altogether to take the breast. In feeble children, there may be some danger from

lack of nourishment, and in such cases the breast-milk must be drawn, and fed to the baby until the acute stage of the cold has passed away. Children who are old enough to use a nasal douche, may be benefited by injections of warm water containing an even teaspoonful of salt to the pint. There is now, however, objection made by very competent authorities to the use of the nasal douche, notwithstanding its undeniable effectiveness. The fluid injected may find its way through the Eustachian tubes to the cavities of the ear, and a permanent deafness be the result. The risk of this accident may be much diminished by allowing the liquid to flow gently, and by just as little pressure as will suffice to convey it through the nasal tubes. Change of air, particularly to the sea-side, will sometimes, apparently, effect a perfect cure of chronic catarrh. This cure is not always permanent, the patient sometimes relapsing after the return home. Children of a scrofulous diathesis are often affected by chronic catarrh as a part of the general morbid state of the system. These cases require the best of hygiene and judicious tonic treatment.

A most frequent and painful complication of the ordinary acute catarrh is sore-throat. Sometimes the violence of the attack falls chiefly on the throat, and we may have headache and disorder of the stomach as accompaniments of simple sore-throat. At a time of scarlet-fever and diphtheria epidemics, sore-throat should never be neglected. Unless the mother is able

to recognize, to a certainty, the diphtheretic exudation or the angina of scarlet-fever, the doctor should be called. If it be known to be only the simple sore-throat of an ordinary cold, home treatment will be all that is required in most cases. If any cathartic is given, it should be a saline draught — as seidlitz powder or citrate of magnesia. These may be given in appropriate doses to children of three or four years of age. If they are old enough to gargle the throat, nothing is better than chlorate of potassa, a drachm to a tumblerful of water. Children can learn to gargle the throat very early, and a little tact and persuasion will sometimes induce them to acquire the art, which is an excellent provision against future possible illness. Some children are very liable to slight sore-throat, felt, perhaps, only on rising in the morning. These cases demand astringents, and half a drachm of tannin may be added to the solution of chlorate of potassa.

External applications do great good oftentimes. An old-fashioned but an excellent remedy is a slice of fat pork, cut very thin, stitched to a bit of muslin, and applied by means of a flannel bandage. It may first be sprinkled with salt or powdered camphor to make it act more quickly.

The value of these simple remedies depends largely upon skill in preparing and employing them. After the bandage is ready, the pork being nicely stitched upon it, warm it slowly until it becomes soft, flexible, and oily on the surface. Then, if the soreness is high

up under the angle of the jaw, the ends of the bandage should be brought up on the head and carefully pinned, not so tightly as to be uncomfortable, but so as to keep the slice of pork in close contact with the skin. If the soreness is lower down, the bandage may be simply fastened around the neck. This must be kept on for some time. After twenty-four hours, a slight eruption will appear under the bandage, when it may be left off for a little while and afterwards reapplied. But in twenty-four hours we should expect a simple sore-throat to be very much improved. Apparently more simple than these things, yet really requiring more care and judgment in its use, is cold water. For robust, healthy children attacked with sore-throat or bronchitis, compresses of cold water will often work like a charm,—the soreness will vanish, the tough phlegm loosen up, the breathing grow easy, and the child fall off into a sweet sleep. For delicate children, hot water may be used instead of cold. This powerful therapeutic agent, cold water, let me repeat, must be used with judgment and caution. The napkin should be folded from two to four thicknesses; it should be wrung so dry that no water can drip or be easily squeezed from it. Then it should be covered with layer upon layer of flannel, —it is better to be in excess than the contrary,— and these should be brought down very closely around the person. The entrance of air under the covering would be fatal to all hopes of a good reaction. If the remedy is to do good, the sense of chilliness will

give way in a few minutes to a pleasant warmth, and in half an hour or a little more the surface under the compress should be glowing red and perspiring. The wet cloths can then be removed, the skin washed off quickly with cold water, rubbed dry and warm, and covered lightly but warmly with flannel. If the reaction does not speedily occur, the wet compress should be thrown aside, flannels wrung out of hot water substituted, and every means used to counteract the effect of the chill. The ordinary cold in the head is apt to become, after a few days, a bronchial catarrh. The inflammation may begin in the bronchi, but it more frequently starts in the nasal passages, and extends, after a little, to the bronchial mucous membrane. The cold, in popular language, has "settled on the lungs." Happily, the lungs, that is the actual lung tissue, are comparatively seldom invaded. If they were, the consequences would be far more serious than they usually are. If pneumonia does occur, it requires immediate treatment. The fever, the flushed face, the constriction and weight across the chest will indicate the gravity of the case and the need of a physician.

In children of a scrofulous or tuberculous diathesis the bronchial irritation is not to be lightly regarded. The inflammation may extend to the lung tissue, and, if there be already a deposition of tuberculous matter, suppuration may follow, and a more or less rapid consumption will be the deplorable result. A neglected bronchial catarrh certainly very often initiates

pulmonary consumption. It can never be safely let alone to "wear off." To be sure, it often does wear off, but who can say when it will fail to do so? How, then, can the departure of a cold in the chest be accelerated? In the first place, by not taking any more cold. It is the little more cold added every day which makes the obstinate case that results in pneumonia or chronic pulmonary disease. Secondly, confinement to the bed if possible, to the house certainly, is an important element in the cure. If the skin is kept warm and moist, the cold will yield with far greater ease, and a few days' confinement at the outset may save much time and suffering. And, thirdly, the patient should not be dosed in the early stages with cough medicines containing opium. At first, it is proper that the bowels, if confined, should be opened by some mild laxative; warm, stimulating applications should be made to the chest, such as linseed-meal poultices, with a little mustard; very often, rubbing the chest with camphorated oil, and covering with oiled silk, will answer the purpose. The oiled silk should be kept on until recovery is well advanced; and when it is removed, if it is cold weather, an extra thickness of flannel should be placed on the shoulders and chest, if the patient is at all delicate. If the bronchitis becomes chronic, continued counter-irritation is among the most efficient means of cure. For children, this should be prudently used. Camphorated oil will suffice for most cases. A little iodine ointment mixed with

simple cerate is a good application. Instead of the warm poultices, hot and cold water compresses may be used as directed above. If hot applications are made, the greatest care must be taken that the chest is not chilled when they are changed. A folded flannel, or cotton batting carefully warmed, may be deftly slipped into place as the poultice is withdrawn.

For the first few days, warm, demulcent drinks, such as flaxseed tea flavored with lemon juice, infusions of Iceland moss, slippery-elm, and the like, may be used. Later, a cough medicine will be needed. Almost every one, outside of the profession, has his infallible remedy, warranted to cure all curable cases. The doctors think that the medicine should be adapted to the patient and the character of the cough, and therefore I do not give here any prescriptions. But one or two things I would like to suggest to the reader: that the cough is not the disease, but only an indication of it; and that stopping the cough without altering the morbid condition, is simply covering up the fire out of sight.

If the cough be purely nervous or spasmodic, with no expectoration, it may indeed be checked without injury. But in most cases the cough is at once the indication of mucus or phlegm in the air-passages, and the means of expelling it. It must not then be stopped, but only so far controlled that it shall not in itself be a cause of irritation, and shall not too much disturb the rest or wear upon the strength of the patient. For this purpose, opium, or some other seda-

tive, in suitable doses, may be combined with an appropriate expectorant. The cough should not be too frequent, and should be kept loose and easy.

Nothing more is necessary except light, digestible food, and if the patient is feeble or of a scrofulous diathesis, tonics are essential. As a nutritive and alterative medicine, cod-liver oil stands at the head of the list, and when consumption exists or is threatened, a prolonged and faithful trial should be made of it. Do not believe that olive oil, cream, or any other oleaginous substance, will do equally as well. These have all been tested, side by side with cod-liver oil, in the great European hospitals, and the latter has uniformly given the best results. Its value is not merely or chiefly as a respiratory food. It is in the pre-tuberculous stage that its inestimable value is best exhibited. In the initiatory stages of phthisis, in scrofulous diseases of children, among which is the one known as rickets; in all conditions where there is wasting of flesh and strength, it is almost always of the greatest benefit. When nicely made up in an emulsion, children often become fond of it, and will grow fat and lusty by its use.

Of all the diseases of the respiratory organs no one is so much dreaded by mothers as croup, and with good reason, since true croup is a terribly fatal disease. And yet many mothers suffer unnecessary tortures. A child who has been perfectly well during the day wakes suddenly in the night, in a fearful paroxysm of difficult breathing, which seems to menace

immediate suffocation. The family are terror-stricken, and the doctor is instantly summoned; but pending his arrival, the mother suffers agonies of apprehension. I want to say, for the comfort of the mother, that, dreadful as may be the paroxysms, painful as it is to witness the child's sufferings, the anxiety, the alarm, the fear of impending suffocation, are, in most cases, superfluous. True or membranous croup, the croup which in so many cases — in all cases, it is safe to say, where it is not recognized in the beginning and properly treated — destroys life, does not begin in this abrupt and sudden manner. The abrupt invasion is characteristic of a much milder type of disease,— one which yields easily to treatment. Before the doctor arrives, the paroxysm may be broken by applications to the throat of flannels wrung out of hot water, and the administration of some mild nauseant, as syrup of ipecac in teaspoonful doses every fifteen minutes until vomiting ensues. The common hive syrup, a domestic remedy in many families, is also efficacious.

But while the mother may receive comfort from some knowledge of the nature of the disease, there is also involved a warning which I would strongly press upon her attention.

True croup is now considered a zymotic disease. Its essential sign is an exudation of false membrane upon the larynx. Its diagnosis, from other forms of throat disease, including diphtheria, is not always easy, even to the educated observer, and may be said to be

impossible to the unprofessional attendant. The tendency of the false membrane is to extend until the larynx is occluded. The point to be noticed is, that if the existence of this disease is not very early recognized, the destruction of the membrane becomes impossible. In other words, true croup is always fatal if not very early recognized and treated.

It comes on insidiously. The child is only slightly ailing. He has symptoms of a cold, is a little hoarse, but plays about as usual during the day. At night he is worse, the hoarseness is increased, there is painful and difficult breathing. In a few days there are paroxysms at night, similar to those of simple inflammatory croup, and these become progressively more violent. But when this stage has been reached, it is in most cases, perhaps in all, too late for remedies to be of any avail. The earlier symptoms should have excited alarm. Hoarseness growing worse at night, and difficult breathing noticed when the child is asleep, should put the mother on her guard. They may mean only a cold, but they may also signify croup.

True croup is most prevalent in the cold season of the year, and in those countries and localities swept by cold and damp north and north-west winds. There is also reason to suppose that it is hereditary in certain families. The preventive measures are chiefly seclusion from cold and damp, especially when croup is epidemic, and for the children of those families where croup has already appeared.

Among the most unmanageable of this class of diseases is whooping-cough. It is contagious, and occasionally leaves in its wake some irreparable damage, besides being very distressing to both the sufferer and his friends. Young and feeble children should, if possible, be kept from exposure. The spring and early summer are, of course, favorable seasons for getting through with it. It may be mitigated and abridged by suitable measures. Good food, fresh air, precautions against taking cold, are all in order. Certain medicines often do good. Tonics should always be given to feeble children. Vaccination performed during its course sometimes appears to cut it short. Of all remedial measures, change of air is of the most service, and often the change need not be very pronounced to be of benefit. Removal a distance of a few miles, or even from one part of a city to another, has often a happy effect.

In this disease, as in all coughs and colds, it is too much the custom to give various sweet syrups or medicines in which sugar is used. The sweets presently disorder the stomach, the appetite fails, the strength flags, and the system, now enfeebled, has no power to throw off the malady.

Whatever may be the nature of the illness, the endeavor should always be made to keep the digestive organs in good order.

CHAPTER X.

MISCELLANEOUS DISEASES OF CHILDREN.

THERE are many ailments to which children are liable, both acute and chronic, whose character is but little understood by the mother, but which are really far more under her control than that of the physician. Among these is the morbid condition called constipation.

As a transient disturbance this is usually of small moment, but it is also often one of the initial symptoms of serious illness. Constipation of the bowels occurs in the incipient stages of diseases of the brain and its membranes, and we find it also in those light febrile disturbances where there is more or less determination of blood to the head. A relief of the constipation is almost sure to be followed by an amelioration of the head symptoms, always alarming in young children.

If a child, whose bowels have generally been in good order, becomes constipated, whether or not there have been other indications of illness, it will naturally awaken solicitude, and an attempt will be made to discover what is amiss. It may be a slight indigestion, which will become more serious by neglect;

or it may be an early symptom of some grave disease, which can be more successfully treated if recognized at the start.

If a cathartic is believed to be necessary, one of the mildest and safest, as well as the most effectual, is castor-oil, of which a teaspoonful may be given to a child a year old. It may be made less unpalatable by being mixed with a wineglassful of hot milk or coffee, or an infusion of some aromatic, medicinal herb, like chamomile. Spiced syrup of rhubarb in teaspoonful doses is also a mild and efficient laxative. But rhubarb in all its preparations is unsuitable in cases of habitual constipation, as its secondary effect is astringent. For this reason it is particularly good in diarrhœa, where it is needful, as it most frequently is, to sweep away fecal accumulations preparatory to giving astringents. If, however, there is a tendency to habitual constipation, cathartics must be sparingly used, since, in the long run, they aggravate the disorder. In this case, cold bathing, shampooing the bowels, confinement to a simple, nutritious, unstimulating diet, and whatever tonic measures may be indicated, should be perseveringly tried. Give as few cathartics as possible, and, above all things, avoid resorting to the pill-box and castor-oil bottle every time a child is slightly indisposed. For children past infancy, and especially in feverish conditions, the saline cathartics, such as seidlitz powders and citrate of magnesia, are preferable to most others. Often an enema may be substituted for the cathartic with ad-

vantage, and may be used at any time to assist or hasten its action. They are usually made with tepid water, to which is added a little salt or mild soap, and, in some cases, olive- or castor-oil, and from one-half to a whole teacupful may be injected at once. The liquid should be retained about half an hour; and to insure this retention the child may be held on the lap, and pressure with a napkin employed. The greatest care should be taken not to introduce air into the bowel, thus causing a painful, artificial colic; in order to avoid this, allow a stream of water to flow through the tube before immersing it in the liquid prepared for the enema. This care is also essential where the enema is to be retained, as in the anodyne injections used in dysentery. Of these, the proper quantity for a child two years old and under is about a tablespoonful.

Above all measures for preventing constipation, the habit of making the attempt to evacuate the bowels once a day is the most important. This habit should be formed in early childhood; neither study, nor play, nor work, should be allowed to interfere with the observance of this rule, and no excuse should be accepted for its neglect. It would require too much time and space to detail here the evils which result from permitting children to grow up subject to habitual constipation.

They are numerous and grave enough to warrant the most urgent warning, and I am satisfied that in a majority of cases, if the mother were sufficiently

careful of the diet and habits of the child in early life, this misfortune might be prevented.

Prolapsus of the mucous membrane of the rectum sometimes occurs in the course of prolonged or severe diarrhœa or dysentery. It may be replaced by using gentle pressure with a soft linen napkin rubbed over with cerate or cold cream. When the intestinal disorder is cured, the parts will be restored to the normal condition.

Nocturnal incontinence of urine is a most inconvenient malady, which sometimes persists until puberty, and, in rare cases, even later. Usually, however, it disappears spontaneously at the age of eight or nine years. It sometimes resists all treatment, but can generally be mitigated. The habit of holding the urine as long as possible during the day should be insisted upon; if there is debility, the usual hygienic measures are in order; excessive drinking, particularly during the afternoon and evening, and late and hearty suppers should be discouraged. If the means suggested fail, which they will quite often do, the malady depends upon a cause beyond the reach of domestic treatment, and a physician is required. Nothing is more cruel or unjustifiable than punishment or threats of punishment.

Inflammation of the breasts may occur in new-born babes. The gland becomes hard and swollen, tender to the touch, and sometimes red; a milky fluid exudes when the nipple is pressed. This inflammation commonly subsides without treatment, but occasionally it

terminates in an abscess containing pus, which must be evacuated. Warm baths and soothing local applications, like Goulard's extract, diluted with rose-water to the extent of one-half, weak camphor-water and the like, may be tried. If an abscess forms, a simple poultice of linseed-meal may be applied, and the doctor should be called in to evacuate the abscess. In the case of female children, especially, the lancet should never be trusted in inexperienced hands; an ignorant operator might very easily sever the milk ducts, and thus inflict irreparable injury. Avoid squeezing the breasts when they are inflamed. This inflammation may also occur in both sexes at the age of twelve or fifteen years, and indicates the approach of puberty. There may be heat, pain, sensitiveness and, rarely, an abscess, or there may be a chronic hardness without pain or tenderness. These symptoms generally disappear spontaneously, but if they linger for some time and are troublesome, the measures above mentioned may be employed.

Abdominal hernia is frequently met with in children. It may be caused by long and violent crying, or by a sudden strain, and it sometimes appears a few days after birth, without any appreciable cause. In any case, if a child suffers from apparent colic, which does not yield to the ordinary remedies, a physician should be consulted. It may be a strangulated hernia.

Leucorrhœa is a disorder not unfrequently found in little girls even in infancy, and it is often associ-

ated with a quite severe local inflammation. It is sometimes a disease of debility, merely, and will yield to good hygienic and tonic treatment. More often it is found in children of a scrofulous diathesis, and this condition of the system demands alterative as well as tonic treatment, and the professional adviser should be consulted. It is also sometimes caused by want of proper cleanliness, by an acrid quality of the urine, and occasionally by small thread-worms which escape from the rectum. If not complicated by any disorder of the system, it yields readily to the measures already recommended for excoriations about the anus, with which, indeed, it is often associated. These are, the most scrupulous cleanliness and the use of mild lotions, and powders dusted over the surface. Among the best of these lotions are camphor and lead-water. One-third pure water to two-thirds of the medicated water, as procured at the druggist's, is a good proportion for a child of a year old and under. For a powder, a drachm of sub-nitrate of bismuth to an ounce of lycopodium or rice-powder is all that can be desired.

Rickets is a disease common among children of a scrofulous diathesis. It consists in a fault of nutrition by which the bones contain less than their normal proportion of the salts of lime; they are soft and yielding and easily bent. In mild cases the long bones of the legs are most affected; sometimes the head is abnormally large from the unnatural elasticity and consequent distention of the cranium; in

more marked cases the chest and ribs are involved, and the chest projects at the sternum, making the so-called pigeon breast. The child is usually pale and weak, the muscles soft and flabby, the teeth are slow in coming, the abdomen is apt to be distended and hard. There are, however, exceptional cases where the physical signs of ill-health are wanting, and the child is fat and rosy, yet, sooner or later, the morbid condition reveals itself. These cases require constitutional treatment, and this treatment, to be of any marked value, must be persisted in with heroic patience. Hygienic measures, an out-of-door life, and an abundance of nutritious, easily-digestible food, are essential.

Rickety children should not be allowed to stand or walk until the disease is well advanced towards a cure. The notion that bearing the weight on the limbs will make them grow stronger is altogether fallacious. It will, on the contrary, produce curvatures resulting in a life-long deformity. If these are already established, much good may be hoped from a suitable apparatus, and the earlier it is applied the more confidently may favorable results be anticipated.

All the ordinary slight ailments of children are apt to be accompanied by a considerable degree of fever. This is peculiarly true of plethoric and robust children. The febrile disturbance is often altogether disproportioned to the gravity of the attack. A little cold, a trifling gastric derangement, will kindle a fever that seems to threaten alarming consequences, but it

usually yields promptly to mild domestic remedies. If, however, an epidemic is abroad, as scarlet-fever or diphtheria, or if the child is known to have been exposed to either of these undoubtedly contagious diseases, the occurrence of fever is justifiable cause for alarm. It is much better in these cases to call the physician early. The treatment in the first few hours may determine the issue.

I am aware that I may be accused of writing in the interest of the profession. It is, on the contrary, wholly in the interest of the patient. It is the patients who are dosed with quack medicines, deluged with stimulating teas, drenched with vapor-baths, purged by pills and soothed by infallible anodynes, that furnish the prolonged and profitable cases to the doctor, and assist the undertaker to live.

Shall we, then, send for the doctor every time the baby sneezes or the robust boy is feverish? This is not to be expected, and one of the main purposes of this little book is to teach the intelligent mother to discriminate between those dangerous diseases which require the best skill of the physician to conduct them to a safe issue, and those light ailments which disappear spontaneously or with slight treatment. But I must repeat here that this differentiation is often quite impossible to the unprofessional observer, and it is surely better to err on the safe side, even at the cost of a few dollars, than to run any serious risk. I do not hesitate to assert that the proportion of recoveries from even grave diseases might be much

greater than it is, if judicious medical advice were sought in the beginning.

I must add that there is one thing which mothers are bound by reason and common sense to do, and this is to refrain from giving quack medicines. I include, under this name, all those medicines whose composition is a secret. Doubtless many of them are useful in appropriate cases. All of them which have any real remedial value were made up either from the formula of a physician or an educated pharmacist. But all medicines must be given with discrimination, and no layman can tell, with any degree of assurance, whether a certain remedy is or is not demanded. Again, we are ignorant of the composition of these vaunted medicines. Dare you trust an irresponsible stranger who keeps the ingredients of his nostrum a secret, who cannot be reached if it does injury, and made to suffer in fortune or in reputation? I plead for the children, that they at least be not made the victims of credulity or an ill-judged economy.

CHAPTER XI.

ACCIDENTS.

THE liability of children to accidents of more or less gravity, is a fact almost too familiar to the anxious mother, whose solicitude is occasionally so constant and painful that she may be truly said never to know a moment's peace of mind from the birth of the child until it has grown up.

While I would be far from deprecating that maternal watchfulness which precludes serious disaster, except under a conjunction of unhappy circumstances, and spares the child the greater part of the small hurts of infancy, I would still suggest that it is possible to become morbid upon this subject as upon any other; that this solicitude may be so vigilant as to unnecessarily hamper and restrain the child and distress the household; that it may stand in the way of his future good; and, finally, that excessive coddling is evaded sooner or later by the boy or girl who has character and mettle, and is, of all sorts of discipline, the worst for the child whose flaccid temperament and will need the lesson of self-reliance.

The tendency, just now, being wholly towards juvenile independence, it may not be needful to say what,

IN THE WINDPIPE

the case is more serious, and less within our control. But here Nature sometimes expels the intruder in violent coughing.

IN THE EAR.

The little things which children are so fond of putting into all the open cavities of the body sometimes give a good deal of trouble in the ear. Insects may be destroyed by dropping into the ear spirits of any kind. If the substance, whatever it may be, cannot at once be removed, a little warm oil, with a drop or two of laudanum added, will relieve the pain. Then, by turning the side affected downward, a single shake of the head will often cause it to fall out. If not, injections of warm water into the ear, with the head in the same position, will perhaps wash it out. These have sometimes succeeded after a persevering use of several days.

Burns and Scalds.

These, if slight, are easily treated and quickly cease to give pain. Sometimes painting over the burn with common mucilage will suffice. The best domestic remedy for burns is the limè liniment, sometimes called carron oil. To prepare it, mix eight ounces of lime-water with seven ounces of linseed-oil. Lime-water may be procured at the druggist's, or made at home by dissolving quicklime in water, a

little more than an ounce to a quart. It should be kept in well-corked bottles, and it is best that there should be some undissolved lime in the bottles.

In applying a dressing to a severe burn, lay a fine, soft piece of muslin next the skin, and cover with a light layer of cotton wool or wadding. If the muslin were not interposed, the dressing would be very painful. In severe burns use cold applications immediately, while the dressing is being prepared.

Blows on the Head

are among the most alarming hurts that children receive. If they are serious, they require other than domestic treatment; if slight, they may be relieved by compresses of cold water or, still better, alcohol and water.

Bruises and Wounds,

both cut and punctured, are best treated by douches of warm water to relieve the pain, followed by bandages saturated with alcohol and water (one-third dilute alcohol). If, however, cut wounds bleed copiously, cold water may be used to stanch the flow, and the edges afterward brought in apposition and retained by narrow strips of adhesive plaster.

Fractures

are beyond the reach of domestic surgery. Fortunately, simple fractures in children are not very alarming, consolidation being quickly effected unless hindered by the intractability of the child.

Sprains

are frequently very painful. When this is the case embrocations of camphor liniment and laudanum are useful, alternated with cool baths and compresses. The old-fashioned remedy, ox-gall, is efficient. It is important that the limb be kept elevated, so that the fluids of the body should not gravitate to the part and increase the congestion. When the joint can be moved without too much pain, sprains are successfully treated by shampooing the part, the hands of the operator being previously warmed and oiled.

I cannot omit here an earnest protest against the common but reprehensible custom of lifting children by one arm. It is hard to see how any person, not to say a mother, can do anything so obviously cruel. The weight of the little one suspended from one shoulder is as great in proportion to the parts which support it as the weight of an adult similarly suspended, and as much more painful and dangerous, as the muscles and ligaments of the child are tenderer than those of the adult. Yet every day one sees in the streets little children dragged about by strong men and women, chiefly women, in this inhuman manner. Almost as objectionable is the practice of leading little children, just learning to walk, by one hand, since, if the little creature happens to make a misstep and fall forward, his whole weight is thrown suddenly upon the extended arm. A distinguished French surgeon says that he has occasion to treat

great numbers of children with sprains of the elbow and shoulder-joint, and that they are nearly all caused by their being lifted by one arm.

Chilblains

are induced directly by exposure of the feet to cold and wet, but are indirectly due to a constitutional defect which requires alterative and tonic treatment. The local measures are cool foot-baths; sometimes emollient baths, as decoctions of flax-seed, bran, or slippery-elm, when the inflammation is acute and the chilblains very tender; tonic foot-baths, as infusions of oak bark, and various ointments. The following ointment is useful at all periods of the disease:

℞ Pot. Iodidi . . . . . ʒj.
Tr. Iodini M . . . . . xx.
Adipis . . . . . ʒj.
M.

Bleeding at the Nose

is common in childhood and youth, and need give no alarm unless the hemorrhage is frequent and profuse, or occurs in pale, weakly children. In plethoric subjects it is often salutary, relieving cerebral congestion. Occurring in girls at or near puberty, it may be considered vicarious, and will cease when menstruation becomes established. When it is desirable to check it, this may often be done by elevating the arms above the head and keeping them in that position for a short time. The nostrils may be plugged with lint saturated with cold water, or bits of ice

may be substituted. In bad cases, the posterior nares must be plugged and astringent solutions used.

Accidental Poisoning.

It would be impracticable in a work like this to give antidotes for the various poisons and directions for their use. In general, it may be said that cold affusions to the head and hot foot-baths are in order. The antidote should be given first and an emetic afterward.

If a child has been overdosed with paregoric or laudanum, send for the doctor; but if his arrival is likely to be delayed, give, meantime, strong black coffee, and, in addition to the cold affusions and hot foot-baths, use friction to the skin as vigorous as the child can bear.

For acids, the antidotes are alkalies, like magnesia, chalk, and solutions of soda.

For alkalies: vinegar, lemon juice, oil.

If concentrated lye is swallowed, pour into the stomach a quantity of lard or olive oil. This, unhappily, is a grave accident, and recovery is not to be expected.

Oil or lard may safely be given immediately after the ingestion of any of the ordinary poisons. The surface of the stomach thus becomes covered with the oleaginous fluid, and, absorption being hindered, time is given to seek the treatment adapted to the case.

When asphyxiating gases are inhaled, fresh air, cold affusions, and artificial respiration are required.

CHAPTER XII.

APHORISMS.

OF one thousand children born, one hundred and fifty die within twelve months. At fifteen years of age, six hundred and eighty-four remain of the thousand.

The daily increase in weight of a normally developing infant amounts to from a quarter of an ounce to three-quarters of an ounce.

I consider bathing as the grand arcanum of supporting health, on which account, during infancy, it ought to be regarded as one of those sacred, maternal duties the performance of which should on no account be neglected for a single day.

During the entire period of infancy and childhood the hair should be kept short. . . . I have never seen softer, better hair than on girls who have had it kept short, like that of school-boys, until they were in their tenth year.

Every article of dress worn during the day should be changed on retiring to rest.

The milk of the mother (or a healthy nurse) is the natural and only proper food for an infant. Nature does not afford, nor can art supply, any substitute. In the asylums for foundlings and young infants, where feeding by hand has been substituted for the natural nourishment, the mortality has been most appalling. As high as ninety per cent. of the infants have been destroyed.

Never was there a more absurd or pernicious notion than that wine, ale, or porter is necessary to a nursing-woman in order to keep up her strength, or to increase the quantity or to improve the nutritive qualities of her milk.

Children should not be allowed to eat frequently between meals. . . . The child should be accustomed to partake of food only at regular periods.

As a general rule, sugar should be given to children rather as an addition to less palatable articles of diet than as the principal food.

By a healthy child, nearly all the saccharine fruits, when perfectly ripe and mellow, may be eaten in moderation with perfect safety.

Man should be submitted from his cradle to the laws of hygiene, so as to strengthen his constitution if it is good, and in order to improve it if it is bad.

A woman who nurses should give the breast every two hours at least, every hour at most.

Between eleven o'clock in the evening and six in the morning, a good nurse only suckles the child once.

A milk too rich, too much charged with solid elements, in a healthy nurse, is indigestible, and causes diarrhœa.

Whatever may be the cause of the alteration in the composition of the milk, the result is always the same to the children; the symptoms which become developed are always seated in the alimentary canal, and diarrhœa is always the consequence of it.

The change of nurse has no inconvenience, if a bad one can be replaced by a better.

Fatty food is hardly suitable until towards the end of the first year.

The period for weaning should be fixed between twelve and twenty months.

Weaning is commenced by ceasing to give the breast during the night.

The head should be washed with the greatest care,

and it should be gradually cleansed from the scaly substance which covers it.

The most intense fever, with restlessness, cries, and spasmodic movements, may disappear in twenty-four hours, without leaving any traces.

A child which has rapidly lost its plumpness, whose flesh is soft and flabby, has had, and is probably laboring under, diarrhœa.

A violent fever dries up the secretion of tears.

A sudden and rapid convulsion, unattended by fever, is not at all dangerous.

Fresh air, cold, and the sprinkling of the face with cold water, are sufficient to ward off an attack of convulsions; but, when once it has commenced, they do not arrest it.

A sudden, nocturnal attack of suffocation, accompanied by a dry, hoarse, hissing, and sonorous cough, announces false croup.

False croup, very violent at its commencement, diminishes in a few hours; whereas true croup advances without intermission, daily increasing in intensity.

Two or three fits of suffocation, less and less severe,

with an interval of twenty-four hours, characterize false croup.

Inflammation of the alimentary canal of young children is preferably established in the large intestine, very seldom in the small intestine, and still more rarely in the stomach, and well deserves the name of entero-colitis, which I have applied to it.

Entero-colitis is the natural consequence of improper regimen of children, of bad milk of nurses, of alimentation from the feeding-bottle, of the premature use of solid food, whether fatty or otherwise, of multiplied indigestions brought on by the folly of some mothers.

Fever, vomiting, green, variegated, or serous diarrhœa, and emaciation combined with great softness of the integuments, announce an acute entero-colitis.

Children should not be allowed to sleep with persons advanced in age, nor with those of a broken-down constitution or who are laboring under any chronic disease.

When asleep, an infant should be excluded from light and noise.

A young child should not be awoke from its sleep suddenly, nor by any rude motion or loud noise.

Infants should be gently handled. Pulling them about roughly, trotting, tossing, swinging them from side to side,— all rude play of this sort does no good, and may do harm.

A prudent mother, who is herself of an amiable and cheerful disposition, must perform but illy her duties as nurse, or she would seldom have cause to complain that her time is wholly occupied during the day, and her rest disturbed at night by the cries of a fretful infant.

Children, if properly trained from birth, are far more docile than the generality of parents are inclined to believe.

The common people of Italy are remarkable for beauty of face and symmetry of form. This has been attributed to the pre-natal influence exercised upon the development of the child by the constant presence before the eyes of the mother of the pictures of the great masters and the noble sculptures of antiquity. *Selected.*

CHAPTER XIII.

FORMULAS.

THE few simple and safe formulas for medicines here given are designed to meet possible exigencies, and may properly replace popular secret nostrums. They are not intended to supersede the physician.

℞. Potass. Chlorat. . . . . ℥ii.
Acid Carbolic. . . . . gtt. iv.
Glycerini. } *a a* . . . ℥ii.
Aquæ. }
m̃. ft. sol.
Sig. Used as a gargle.

This is an efficient gargle for all varieties of sore-throat, and may be used every hour or several times daily, according to the severity of the case. In the ordinary sore mouth of children it is employed as a wash by means of a soft sponge or swab.

℞. Podophyllin. . . . . grs. j.
Alcohol. . . . . ℥j.
m̃. ft. sol.
Sig. One to three drops on sugar two or three times daily.

Useful as a laxative in habitual constipation of children, with hard, clay-colored or greenish stools.

℞. Vini Ipecac. . . . . ℥ss.
Sig. One drop in a little sugared water every hour.

In dysenteric diarrhœa, with slimy stools, whether vomiting be present or not.

℞. Tr. Op. Camph. . . . . ℥ji.
Fld. Ex. Geranii Mac. . . ℥jii.
Bismuth Sub. Nit. . . . ℥jss.
Syr. Zing. } a a. . . q. s. ad. ℥ji.
Aquæ. }
m℥.
Sig. One teaspoonful once in two or three hours.

Used in simple diarrhœa.

℞. Amm. Mur. . . . . ℥j.
Morph. Sulph. . . . . gr. j.
Syr. Glyc. . . . . q. s. ad. ℥ji.
m℥. ft. sol.

A valuable cough medicine. Ten drops to half a teaspoonful may be given to children from one to five

years of age. To be given at bedtime, and two or three times during the day if required.

℞ Quin. Sulph. . . . . ℥ss.
Glycerini . . . . . ℥iss.
Acid Tannic. . . . . grs. ii.
Syr. Glyc. . . . . ℥iiiss.
M. ft. sol.

A tonic in which the taste of the quinine is nearly disguised. Dose from half to a whole teaspoonful.

℞ Potass. Bi.-Carb. . . . ℥ji.
Aquæ. . . . . ℥vi.
M. ft. sol.

An agreeable fever mixture. Make a lemonade by mixing a tablespoonful of lemon juice with sugar and half a tumblerful of cold water. Add to this a tablespoonful of the solution. May be given every two or three hours as required.

℞ Olei Morrhuæ . . . . ℥ii.
Ovi Vit. . . . . j.
Mucil. Gum Acac. . . . q. s.
Phos. Acid Dil. . . . . ℥ji.
Aq. Cinn. . . . q. s. ad. ℥iv.
M.

The above is a good formula for an emulsion of cod-liver oil. The dose is a teaspoonful three times daily.

If it is considered desirable to give the oil pure, it may be disguised in different ways, according to the taste of the patient. Among other methods are the following:

1. Give it in orange or lemon juice.

2. Add to each dose a few drops of Acid Nit. Dil. and Tr. Comp. Card.

3. It may be floated on the froth of porter or on weak brandy and water.

4. Five drops of ether may be combined with every teaspoonful of the oil. Ether is also an important aid to its digestion.

5. A little salt may be eaten after the oil is swallowed, or a bit of smoked herring. It is best given about half-way between meals and at bedtime.

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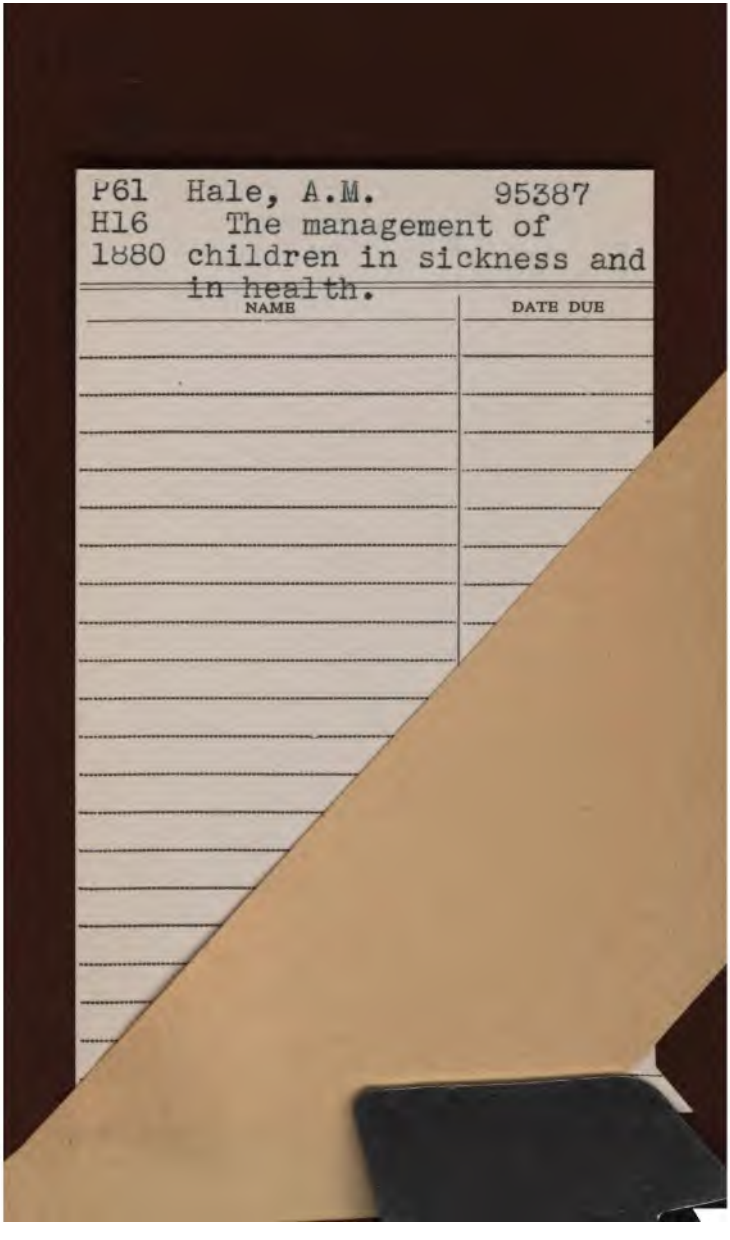
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